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Geographic Analysis and Monitoring Program

Fire Danger Monitoring and Forecasting Project

Statement of Problem

Monitoring fire danger at the national scale requires research and development involving climate, weather forecasting, topography, vegetation moisture, and land cover types.

Objectives

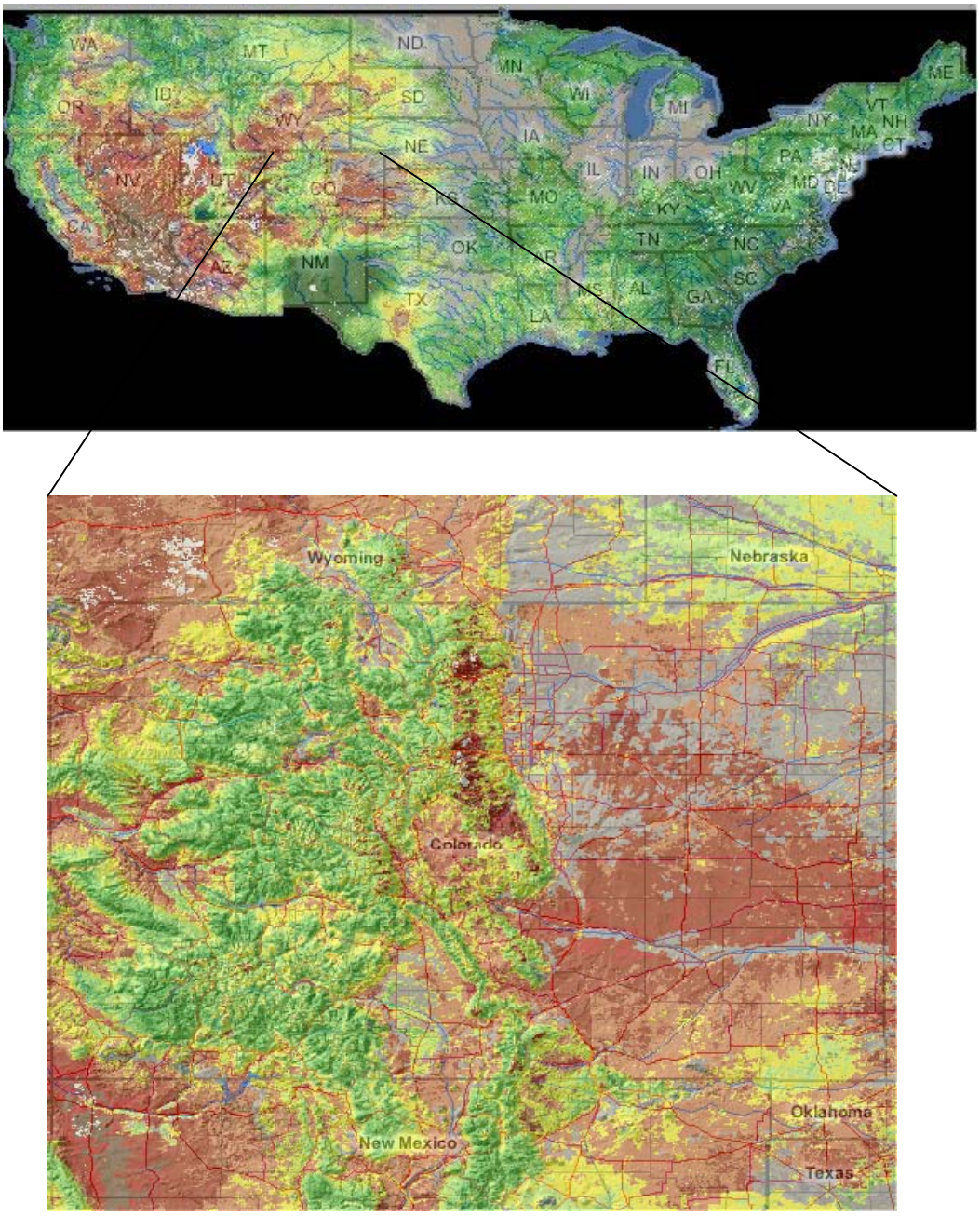
The goal of the project is to conduct research into the interactions of specific factors, such as, climate/weather, vegetation, fire fuels, which affect large area fire dangers. The objective is to enhance fire danger monitoring capabilities by conducting such research for the existing Fire Potential Index. Study consistency and accuracy problems related to scale, satellite resolution, processing, and ground data calibration.

Relevance and Impact

This project will enhance the use of satellite data for monitoring and forecasting large area fire danger. The primary deliverable of this project will be an improved monitoring tool for wildland fires. The research incorporates components of atmospheric science, geography, land cover mapping, vegetation studies, and image processing.

Strategy and Approach

The project staff will work closely with external partners to evaluate current monitoring models for areas of improvement, and to identify key research areas that can be studied and accomplished within the next three years. Task staff will develop a study plan on the basis of consultation with selected users and partners. Task staff will aim at publishing a review paper about large-area fire danger monitoring in the early stages of the task. Project staff will use the USGS EDC Fire Science web page, to post their reports and research results, and will maintain an interactive web-mapping page to provide a view of the data.



Images of experimental Fire Potential Index from the fire science interactive web-mapping page.
URL: http://gisdata.usgs.gov/website/IVM

For More Information

Jeff Eidenshink
605-594-6028
eidenshink@usgs.gov